Certain Characteristics of iSchools v. Other LIS Programs

Robert Wedgeworth
Rutgers, The State University of New Jersey
rwedge@illinois.edu

Abstract

This exploratory dissertation study compares 17 iSchools and 36 Other Schools that offer the ALA-accredited Masters degree program with respect to certain characteristics. The study compiles quantitative and qualitative data on 32 variables and subvariables drawn from the 2010 ALISE Statistical Report, web sites of the schools, and the Elsevier SCOPUS database. Statistical analysis of the data reveals significant differences between the iSchools and the Other Schools. The analysis and results have been completed, but the conclusions and implications are still under consideration.

Keywords: ischools, qualitative analysis, quantitative analysis, information science, library science

Background

Beginning in the late 1980's the deans of several of the leading LIS programs began informal meetings to share ideas and to coordinate their efforts. (Larsen, 2008) The deans, led by Toni Carbo Bearman at the University of Pittsburgh, sought to distinguish themselves from the broader LIS field. By 2002, the group had grown to include the deans of LIS programs in more than ten institutions and began to formally identify the group as 'information schools," or "iSchools." (Larsen, 2008). By 2010 the iSchools had held its fifth annual iConference and counted 31 institutions within its ranks, seven of which were outside of North America.2 Seven of the 24 iSchools in North America originated from the fields of computer science and engineering rather than LIS programs. The iSchools' web site (www.ischools.org) lists the primary membership requirements as $1 million in research funds annually; an emphasis on research; and a commitment to the iField. The principal organizing concept of iSchools' programs is the relationship of information, people, and technology.

According to the 2010 statistics of the Association for Library and Information Science Education (ALISE), the iSchools movement now includes the majority of the largest full-time equivalent (FTE) faculties in the library and information science (LIS) field. (ALISE, 2010) The movement also includes the majority of those LIS programs in research universities. As the most significant effort to redefine LIS programs by advancing the concept of the iField, the iSchools are a logical focus for study. The problem is how to discern the differences, if any, between those programs that identify themselves as iSchools and those that do not (Other Schools).

The Problem

The purpose of this dissertation study is to identify certain characteristics of LIS programs that offer the ALA-accredited Masters degree in order to determine if there are significance differences between the iSchools and the Other Schools with respect to the faculty, students, curriculum, or resources. This study is based on data representing the academic years 2005-06 to 2009-10.3

Since it is axiomatic that faculty, students and the prescribed curriculum are the principal influences on students, the hypotheses for this study focus on:

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- Size of the faculty
- Size of the student enrollments
- Total income of the school
- Proportion of external income
- Pattern of curricular offerings—types of courses offered
- Types of research degrees held by the full-time professorial level faculty.
- Quantity of research produced by the faculties between 2005 and 2009.
- Number of different research journals in which the research appeared.
- Level of inter-relatedness of the research within a given faculty indicated by journal co-citations.

The problem addressed here is what "is" the LIS field and how do the iSchools differ from those that do not identify themselves as iSchools—if, indeed, they do differ. In the absence of an appropriate model for this research, the approach taken is to explore characteristics of the three major contributors to the outcomes of an academic program—faculty, curriculum and students. Utilizing both quantitative and qualitative data from multiple sources and exercising inductive reasoning, the study expects to develop a better understanding of the programs

Relevant literature

Two studies by Burnett and Bonnici address the evolution of the LIS field to the iField. (Burnett and Bonnici, 2006) (Bonnici et al., 2009) Using the framework of theories advanced by Abbott (2001) these studies address the status of LIS programs and whether iSchools are advancing toward developing an iField. Wiggins and Sawyer (2012) survey iSchool faculty to determine diversity of research backgrounds Dillon (2012) explores the evolution of iSchools, including their emphasis on research and their relationship to LIS programs.

Methodology

This exploratory study compiles and analyzes data representing certain characteristics of 53 schools or colleges that offer the ALA-accredited Masters degree program, including 17 iSchools as of February 2010. The study excludes programs for which English is not the primary language of instruction; LIS programs located outside of North America; programs less than 15 years old; and those iSchools that do not offer the ALA-accredited Masters degree.

The data compilation source representing the relative size of the faculties, students, and the amount of funding support is the 2010 ALISE Statistical report. The data compilation sources representing the curriculum of the respective programs are the school web sites as of February 2010. The data compilation source representing the research degrees held by over 400 individual faculty members with professorial level appointments is the school web sites supplemented by Google searches. Source of the research records of individual faculty members between 2005 and 2009 is the Elsevier SCOPUS database. Five categories of research degrees in the data in this study are Education, Library and Information Science, Arts and Humanities, Social Sciences and STEM (Science, Technology, Engineering and Mathematics).

Eight categories of courses offered by the programs are used for this study:

- History, Issues and Policies
- General Management—including financial management and personnel
- management.
- Methods and Techniques
- Youth Library services
- Library Services—including archives
- Information Services
- Information Organization
- Information Management

The school web sites are the source additional curriculum data for this study addressing the overall scope of curricular offerings, including other Masters degrees, undergraduate majors and minors, advanced certificate, and Ph.D. programs. The master file of data sets for this study comprises data on

32 variables and subvariables. The study uses t-tests for the analysis of most of the data.6

However, logistic regression analysis addresses the data on curricular offerings and the data on faculty degrees. Since the t-test assumes a normal distribution of the data, additional analyses exclude extreme data points. Logistic regression analysis does not assume a normal distribution of data but can be sensitive to extreme data points. Additional logistic regression tests also exclude extreme data points. In all cases the secondary tests confirm the original results. Tables 1 and 2 display selections from the raw data

FTE Faculty= FTE faculty teaching in the ALA Masters program
FTE Student= Total enrollment in the ALA Masters program
% All Student= Percentage of ALA Masters of total school enrollment
Income Total= Total school income
Income External= Total income from external sources

Table 1
Selected iSchool Statistical Data

Name	FTE Faculty	FTE Student	% All Student	Income Total	Income External
iUBC	18.33	154	68	1587333	0
iUCLA	13.94	135	81	3628865	1526473
iDrexel	49.08	481	54	16339132	4675049
iFlrdaSt	32	304	50	8332771	2243941
iIllinoi	37.5	414	86	10645840	4221774
iIndiLIS	50.5	498	94	9592458	676325
iKentcky	12.75	157	100	1564598	101000
iMarylan	36.6	290	73	4558588	2016123
iMichign	32.51	363	88	18493938	5469334
iUNC	41.5	296	83	9906061	5496848
iNorthTX	28.8	503	86	9527136	6552976
iPittsbr	37.5	261	47	15633902	6314340
iRutgers	34.75	313	55	5864358	1632158
iSyracus	57	117	11	28856482	2945502
iUTAustn	24.8	250	46	5281757	1236655
iToronto	29	377	77	7731147	431787
iWshngtn	49.67	282	48	16617517	11985299

Table 2
Selected Other School Statistical Data

Name	FTE Faculty	FTE Student	% All Student	Income Total	Income External
Alabama	20.5	202	87	2238667	379489
Alberta	9.2	85	91	1853646	359631
Arizona	13.25	191	98	3844142	2221614
Emporia	11.56	227	96	3065001	2021111
KentSt	23.75	470	97	3597936	23
LIU	19.26	284	90	2781138	90000
LSU	10.5	121	88	1027992	115150
McGill	12	161	73	1884189	451271
Missouri	12.75	207	87	1900247	499947
NCCU	15.48	236	75	1671553	130296

Oklahoma	13.31	120	54	1806641	712061
Pratt	18	286	99	2814209	323575
RhodeIs	9.33	100	95	1121851	25003
StJohns	7.66	86	95	2672311	1316000
SouthFL	15	261	100	1899172	100000
SUNYBuff	13	225	95	1732814	127513
Tennesse	15.4	171	64	3501481	1992370
Albany	15	166	95	2295554	599888
Catholic	13.67	142	99	2130821	0
Clarion	16.66	240	79	559660	0
Dalhousie	9	110	49	1216064	172390
Dominican	27.67	403	96	2743106	76682
Hawaii *	9.33	84	96	1385653	279018
Iowa	6.5	68	100	1804298	1021951
NC Greens	13.75	133	99	1455423	43508
Queens	18.3	303	100	1512020	0
San Jose	42	1307	99	10789693	8533693
Simmons	27.66	553	96	5169279	716491
S Carolina	21.5	286	90	3450850	1060425
S Conn	15.66	140	48	1939642	0
S Miss	9	83	64	1092789	230199
TWU	15.75	309	91	1605234	28016
Wayne State	17.5	418	97	3989292	160494
W Ontario	60.75	228	76	9209127	836471
W Madison	17	173	94	3850296	1386053
W Mil	34.5	291	62	5675992	4344462

Table 3
Selected iSchool Research data

Name	# Full-time Faculty	# Articles	# Journals	Journal Cocites
iUBC	10	39	25	20
iUCLA	12	42	25	39
iDrexel	25	275	159	1942
iFlrdaSt	18	146	46	293
iIllinoi	32	205	87	63
iIndiLIS	21	204	88	530
iKentcky	9	40	23	17
iMarylan	23	292	115	591
iMichign	39	443	215	708
iUNC	22	263	84	938
iNorthTX	21	152	50	195

iPittsbr	32	452	245	994
iRutgers	20	150	50	435
iSyracus	28	1130	510	382
iUTAustn	18	64	37	34
iToronto	26	167	79	217
iWshngtn	22	294	118	926

Full-time Faculty= Full-time faculty with professorial appointments
Articles= Number of research articles published 2005-2009
Journals= Number of journals in which research appeared 2005-2009
Journal Cocites= Number of Journal cocitations 2005-2009

Table 4
Selected Other School Research Data

Name	# Full-time Faculty	# Articles	# Journals	Journal Cocites
Alabama	11	30	17	3
Alberta	8	50	26	16
Arizona	13	38	23	23
Emporia	6	0	0	0
KentSt	21	173	105	39
LIU	13	29	20	29
LSU	10	65	18	86
McGill	10	88	40	93
Missouri	11	60	37	6
NCCU	8	21	13	10
Oklahoma	11	45	22	34
Pratt	8	4	4	0
RhodeIs	5	2	2	0
StJohns	6	5	4	0
SouthFL	10	60	32	7
SUNYBuff	9	29	21	6
Tennesse	12	231	81	328
Albany	10	31	17	0
Catholic	9	26	15	32
Clarion	12	12	6	0
Dalhousie	11	35	23	13
Dominican	14	51	9	57
Hawaii *	9	76	16	6
Iowa	8	20	17	0
NC Greens	10	12	7	11
Queens	11	15	12	0
San Jose	13	17	11	0

Simmons	17	87	21	436
S Carolina	13	19	11	27
S Conn	10	2	2	0
S Miss	7	3	3	0
TWU	15	25	16	3
Wayne State	15	24	20	0
W Ontario	25	134	79	99
W Madison	9	61	26	97
W Mil	21	88	34	193

Results

The preliminary t-test analyses of the ALISE statistical data reveal the following:

- The FTE faculties of the iSchools are significantly larger (*M* = 34.48) than those of the Other School (*M* = 17.53).
- The average FTE ALA masters enrollments of the iSchools (M = 305.59) does not differ
- significantly from the average FTE ALA Masters enrollments of the Other Schools (*M* = 246.39).
- As a percentage of the total school enrollment, the average ALA Masters student enrollment of the iSchools (M = 67.47) is significantly lower than that of the Other Schools (*M* = 86.50).
- The average total income of the iSchools (M = $10,244,816.65) is significantly greater than that of the Other Schools (*M* = $2,813,549.53).
- The average external income of the iSchools (*M* = $3,383,857.88) is significantly greater than that of the Other Schools (*M* = $843,188.75).
- iSchools produce more research (M = 256.35) than Other Schools (*M* = 49.41) for the period studied.
- iSchool research is represented in more journals (M = 115.06) than the research of Other Schools (*M* = 23.14) for the period studied.
- There is a significantly higher level of journal cocitation among iSchool faculties (*M* = 489.65) than Other School faculties (*M* = 47.26) for the period studied.

Logistic regression analyses reveal significant differences in the pattern of courses offered for the ALA Masters in the iSchools than in the Other schools. In addition, there is a significant difference in the types of research degrees held by iSchool faculty members compared to Other School faculty members. Information organization and Information management were the most significant courses in predicting iSchool membership, while the STEM degrees were most significant in predicting iSchool membership.

Conclusion

Preliminary results indicate that iSchools are different from the Other Schools in size; in the patterns of their curricula; in the diversity of faculty research degrees; in the amount of research produced; the number of journals in which iSchool research appears; and the amount of cocitation among iSchool faculty. Interestingly, although the proportion of ALA Masters students to the total enrollment of the school is lower among iSchools than Other Schools, the ALA Masters enrollment is the dominant cohort of students in almost all iSchools. The level of research productivity within iSchools clearly confirms a greater emphasis on research than in the Other Schools. The pattern of curricular offerings in the iSchools is different from the Other Schools, but these data do not offer any clues as to why, since the number of courses prescribed for the ALA Masters is comparable in the two groups of programs.

Additional research on curriculum, interdisciplinary v. multidisciplinary research, types of STEM degrees, and types of external funding are indicated.

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